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GOVERNMENT OF SASKATCHEWAN  
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# TYPHOID FEVER

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# Typhoid Fever

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In 1937 there were 204 cases of typhoid fever reported in Saskatchewan resulting in 36 deaths. Almost one-fifth of these cases, therefore, died. Much can be done to prevent such cases and deaths.

The disease is caused by a person swallowing typhoid germs, which germs are found in the urine, faeces or saliva of a person who has or has had typhoid fever. There are many ways in which such germs may reach the mouth of a person, as for instance: by drinking water or milk into which the germs have found their way, or by eating food which has been contaminated with typhoid germs.

Every case of typhoid fever comes from some previous case or "carrier", and human beings only are the source of infection. A certain percentage of all persons who have had the disease continue to excrete typhoid germs, periodically for years. These people are known as typhoid "carriers" and although they may not even know they are "carriers" they are a serious source of danger to others unless they take extra precautions in reference to their toilet habits. They should not engage in dairy work, as cooks or in any employment where they are required to handle food or milk to be used by others.

In water, typhoid germs will live for six weeks or more. In earth, typhoid germs buried several inches below the surface of the soil and covered with soil die more quickly than those thrown on the surface. In milk, the germs grow and multiply in great numbers. Typhoid germs have been found in flies fed from infected milk after twenty-three days.

## *How Germs May Be Carried From the Typhoid Patient to a Healthy Person*

1. By food which has been washed with infected water or handled with infected fingers or become infected by flies.
2. By drinking raw infected milk or the products of such milk as butter or cheese.
3. By drinking water which has become infected from the urine or faeces of a typhoid patient, or from ice made from infected water. Drinking water in a well may be polluted by surface water washing into it or by seepage from a nearby toilet or cesspool.
4. By flies carrying the germs upon their hairy feet from some infected object or discharges, to the food or milk.
5. By contact, either directly or indirectly. That is, a healthy person may come in direct contact with the patient and have his fingers soiled by doing some service for the patient and this infection eventually reaching the mouth of the healthy person. Or indirectly such a person with soiled fingers may infect the food or drink of others.

Typhoid is a filthy disease and the germ enters through the mouth. Typhoid germs must be swallowed before one can contract the disease. A healthy person may swallow a small number of germs without developing any symptoms of sickness. A sound, healthy body may possibly ward off such an attack from the typhoid germs, but if the germs be virulent and are taken in large number (mass infection), the disease is almost sure to develop. A healthy person if exhausted by unusual exertions or when chilled from exposure is more susceptible to the disease.

## *Precautions Against Contracting Typhoid*

1. Keep in the best possible health of body and mind.
2. Always wash hands previous to eating, and after being to the toilet. Do not put fingers in the mouth. Do not put thumb in mouth when turning leaves, etc.
3. If you are not sure the water supply is safe, boil it before using.
4. Milk also should be boiled if suspicious of its sanitary production unless it has been pasteurized.
5. Do not bathe in polluted water.
6. Screen doors and windows from flies and protect all food supplies from flies. "Swat the fly."
7. Typhoid vaccine gives protection for about two years and should be taken advantage of by all nurses, and all other members of a household where typhoid exists. This vaccine is supplied free by the Department of Public Health to physicians.

## THE SICK ROOM AT HOME

The sick room should be sunny and well ventilated with screens on all windows. It should be isolated from the rest of the house and no visitors should be allowed. Unnecessary furniture should be removed from the room. All flies should be killed and no domestic animal such as a cat or dog should be allowed in the room. Limit the number of attendants to two, and they should wear washable clothes and a gown. These should be boiled after use. The attendant must always wash hands after handling the patient or any of his discharges, first in soap and water and then in some antiseptic solution as carbolic 1½ oz. to a quart of water or mer-

curic chloride solution 15 grains to a quart of water.

Cups, plates, glasses, knives, forks, spoons, etc., should be kept for the patient only and boiled after each time used.

All discharges should be received in a bed pan containing a carbolic or mercuric chloride solution, after which the contents should be emptied into a tightly covered pail containing sufficient 10% formalin solution to cover the whole discharge. All faecal masses should be broken up with a stick, and the discharges should remain in this pail for at least one hour to thoroughly soak. The contents of the pail may be emptied into the sewer, or, in case there is no sewer, should be emptied into a trench at least four feet deep and covered with chloride of lime. Sufficient fresh earth should be thrown in the trench after each discharge to keep covered from flies. When the trench is half full it should be filled up and a fresh one dug. This trench must not be located near a water supply. Never throw discharges upon the surface of the ground. Urine and faeces of typhoid patients should be disinfected for several weeks after recovery, as the germ often persists for a long time in the discharges.

Sputum cups must contain an antiseptic solution.

### *Final Disinfection and Fumigation*

(See Regulations for Prevention, Notification and Control of Communicable Disease, Sections 53 to 64.)

Floors, woodwork and furniture of sick room should be scrubbed with soap and water and washed down with a carbolic, mercuric chloride or formalin solution.

All clothes and fabrics that can be washed should be soaked in a disinfecting solution. Goods, articles and clothes that are of no value may be destroyed by fire. If such articles or clothes are valuable, they may be thoroughly sprinkled with formalin solution or fumigated for 24 hours, after which they may be hung for another 24 hours on a clothes line in the fresh air.

The room thoroughly flushed with fresh air and exposed to sunlight.

### *The Patient*

During illness special attention and cleanliness should be given the hands, nails and mouth.

After recovery patient should have a bath with soap and water, and a complete change to fresh, clean clothes.

In case of death wrap the body in a sheet saturated with mercuric chloride, place in a tight coffin which should not be opened afterwards. The transportation of the bodies of those who have died from any communicable disease, by a railway or steamboat company is not considered to be in the best interests of the public health.

### *Families of Milk Dealers or Dairymen*

Cases occurring in such families should be removed to a hospital, or the sale of milk or products of milk from such a farm or house prohibited. The Medical Health Officer, however, may permit the sale of such milk if he is absolutely certain that milk coming from such a farm cannot possibly be contaminated or infected.

## *Wells*

Wells known to contain polluted or contaminated water, should be filled with clean earth. A good well is protected by a tight fitting covering which should be kept clean at all times, should be well banked up with fresh, clean earth, and should be so constructed that the drippings from the pump cannot run back into the well. Animals should not be permitted to drink or stand around the same well that supplies the household drinking water.

Ice which comes from a questionable source should not be used for domestic purposes.

If in doubt about water being used for domestic purposes, boil before using, and send sample from drinking supply to Provincial Laboratory, Department of Public Health, for examination. Write the Department for container.

Typhoid fever cases should be reported at once to the Medical Health Officer and must be isolated in a fly-proof room until complete recovery and until two successive specimens of stool and urine have been reported negative to typhoid bacilli by a bacteriologist.

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